

DIALOG(R)File 351:Derwent WPI
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012976835 **Image available**

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Installation for etching substrates by high-density plasmas comprises a phase delay line causing the supply voltages at both ends of the inductively coupled plasma coil to be in counter-phase with one another

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Number of Countries: 022 Number of Patents: 008

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19900179	C1	20000224	DE 1000179	A	19990107	200014 B
WO 200041210	A1	20000713	WO 99DE4130	A	19991231	200037
EP 1062679	A1	20001227	EP 99966898	A	19991231	200102
			WO 99DE4130	A	19991231	
EP 1062679	B1	20011121	EP 99966898	A	19991231	200176
			WO 99DE4130	A	19991231	
DE 59900683	G	20020221	DE 500683	A	19991231	200221
			EP 99966898	A	19991231	
			WO 99DE4130	A	19991231	
KR 2001096474	A	20011107	KR 2000709869	A	20000906	200226
JP 2002534795	W	20021015	WO 99DE4130	A	19991231	200282
			JP 2000592855	A	19991231	
US 6531031	B1	20030311	WO 99DE4130	A	19991231	200321
			US 2000623734	A	20001122	

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Patent Details:

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DE 19900179 C1 10 C23F-004/00

WO 200041210 A1 G H01J-037/32

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Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU
MC NL PT SE

EP 1062679 A1 G H01J-037/32 Based on patent WO 200041210

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DE 59900683 G H01J-037/32 Based on patent EP 1062679

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KR 2001096474 A H01L-021/3065

JP 2002534795 W 25 H01L-021/3065 Based on patent WO 200041210

US 6531031 B1 H01L-021/00 Based on patent WO 200041210

Abstract (Basic): DE 19900179 C1

NOVELTY - The first (32) and second (31) voltage supply points are joined by means of a phase delay line (30) in such a way that the high-frequency alternating voltages at both ends (20', 21') of the ICP (inductively coupled plasma) coil (6) are at least approximately in counter-phase with one another.

USE - For etching of semiconductor wafers, for example.

ADVANTAGE - Uniformity of the etching rates over the substrate surface is improved.

DESCRIPTION OF DRAWING(S) - The drawing shows a circuit variant for voltage supply to the ICP coil of the proposed installation.

ICP coil (6)

Plasma (8)

Phase delay line (30)

Voltage supply points (31, 32)

pp; 10 DwgNo 5/5

Title Terms: INSTALLATION; ETCH; SUBSTRATE; HIGH; DENSITY; PLASMA; COMPRISE
; PHASE; DELAY; LINE; CAUSE; SUPPLY; VOLTAGE; END; INDUCTIVE; COUPLE;
PLASMA; COIL; COUNTER; PHASE; ONE

Derwent Class: L03; M14; V05

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H01L-021/3065

International Patent Class (Additional): B01J-019/08; H01J-027/16;
H01J-037/08; H01J-037/248; H05H-001/46

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